

Vision Zero/Systemwide Safety Program

1. Major Intersection Safety Projects
2. Speed Management
3. NEW: Pedestrian Safety Improvements
4. NEW: Transit Speed & Reliability

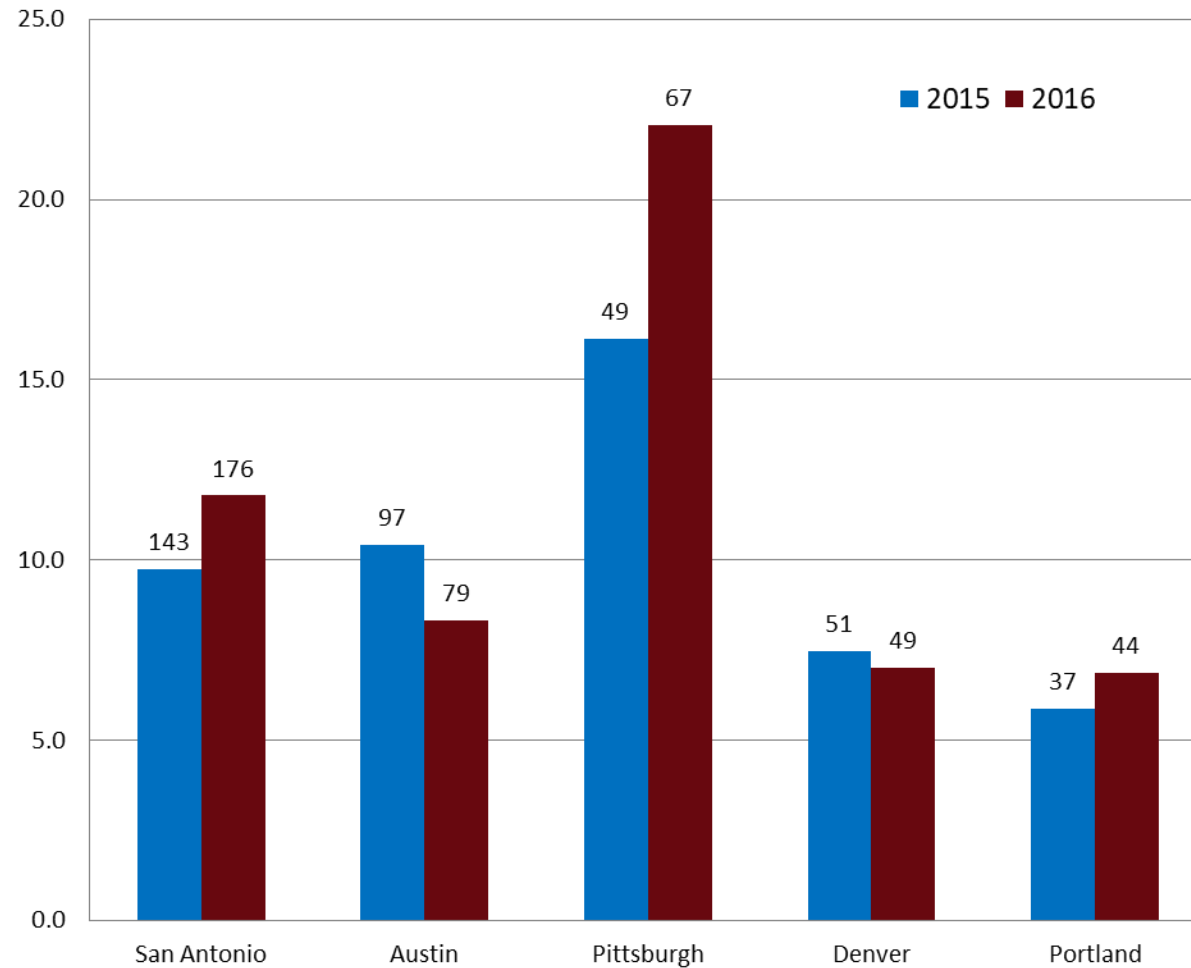


Transportation Working Group
October 9th, 2017

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Fatal Crash Rates (per 100k Population)



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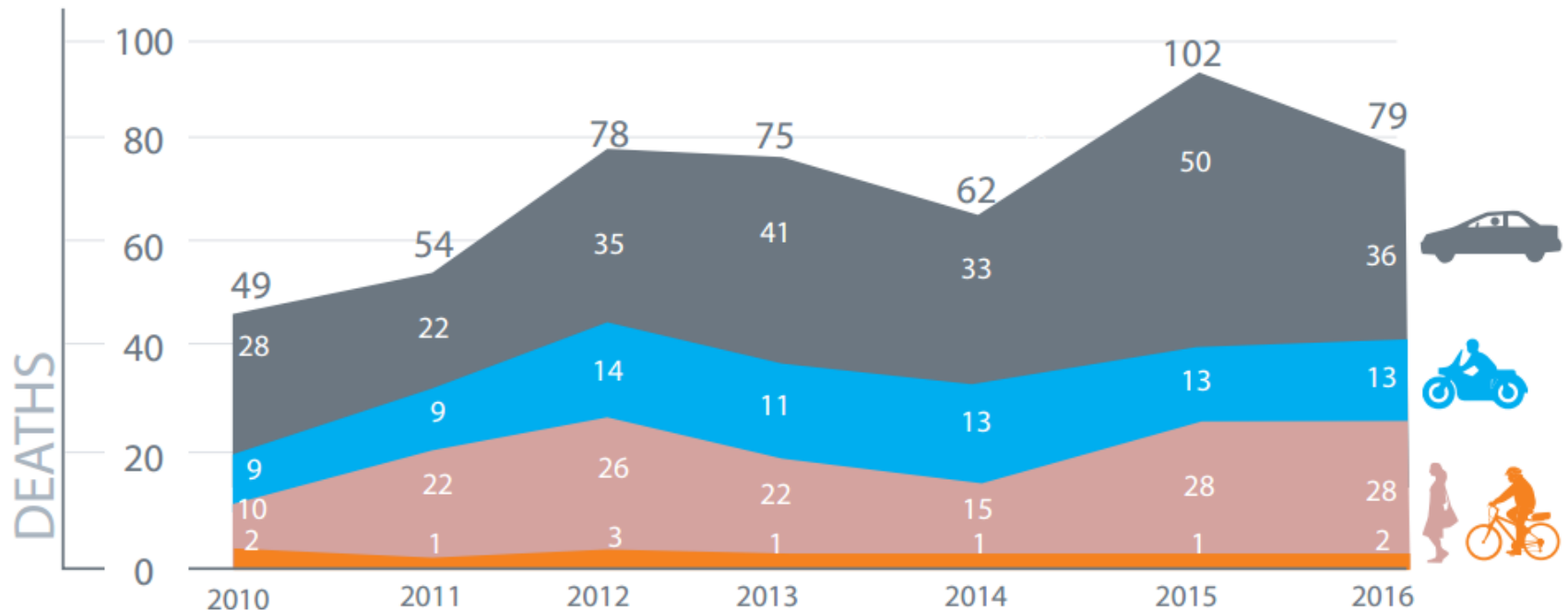
Goal:

- Implementation of fatality reduction strategies at high-crash and high-risk locations in Austin.

CRASHES BY TRANSPORTATION MODE

Vision Zero Annual Report, 2016-2017

People Killed



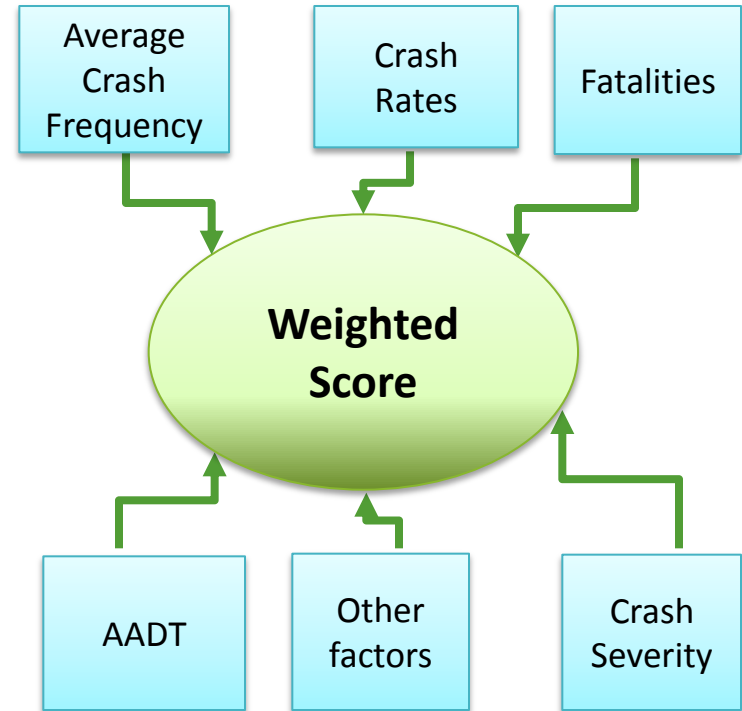
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Major Intersection Safety Projects

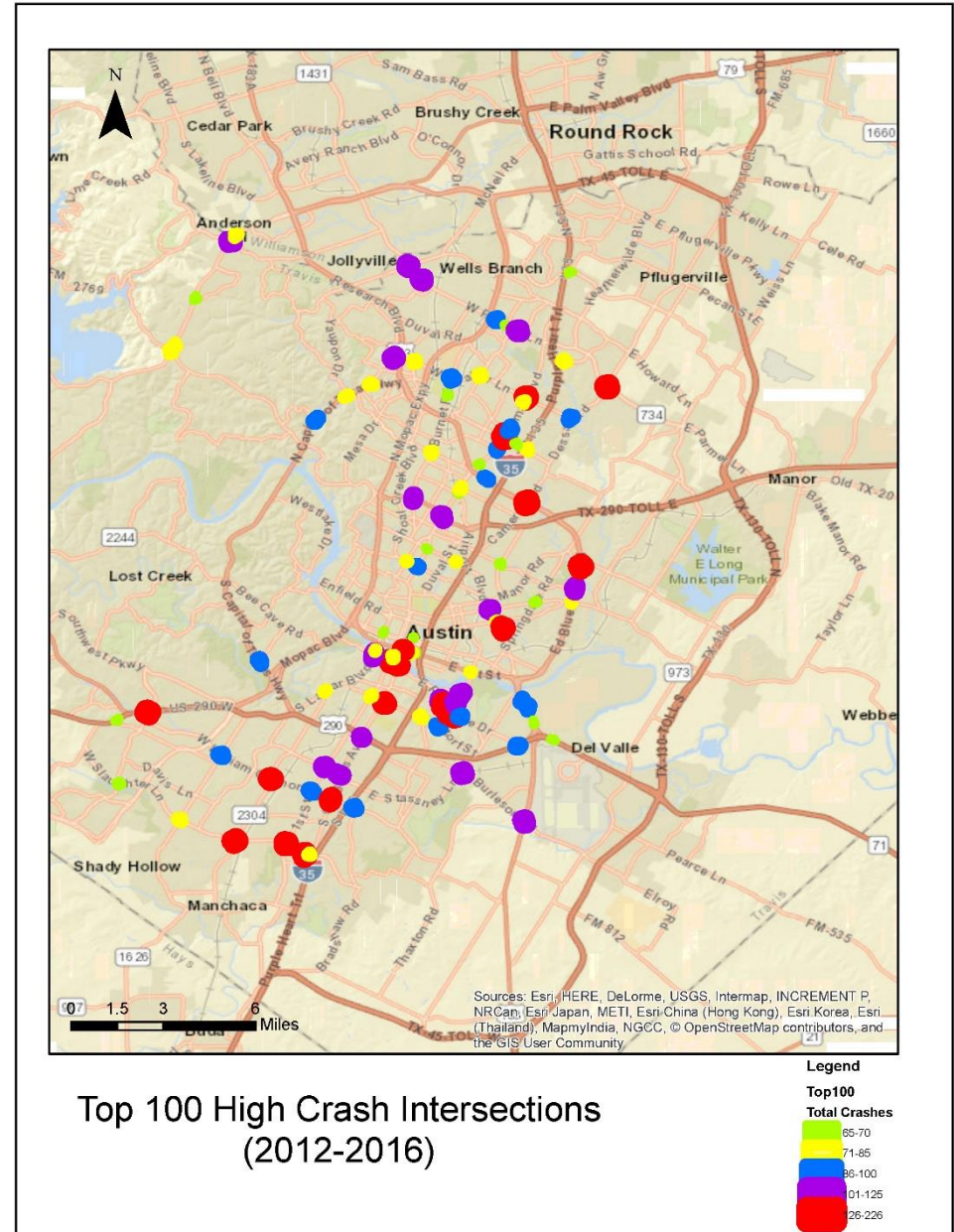
Crash Analysis Process

- Procure data from TXDOT and Austin Police Dept.
- Identification of high crash intersections
- Establishment of crash analysis indices
 - Average crash frequency
 - Crash Rates
 - Crash severity
 - Fatalities
 - Intersection AADT
 - Adjacent land use and other factors
- Weighted score
- Intersection Ranking. Currently looking at top 100 intersections



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Major Intersection Safety Projects



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Major Intersection Safety Projects

Project Delivery Timelines

Study

- Crash Analysis
- Safety Recommendations
- ~ 2 months

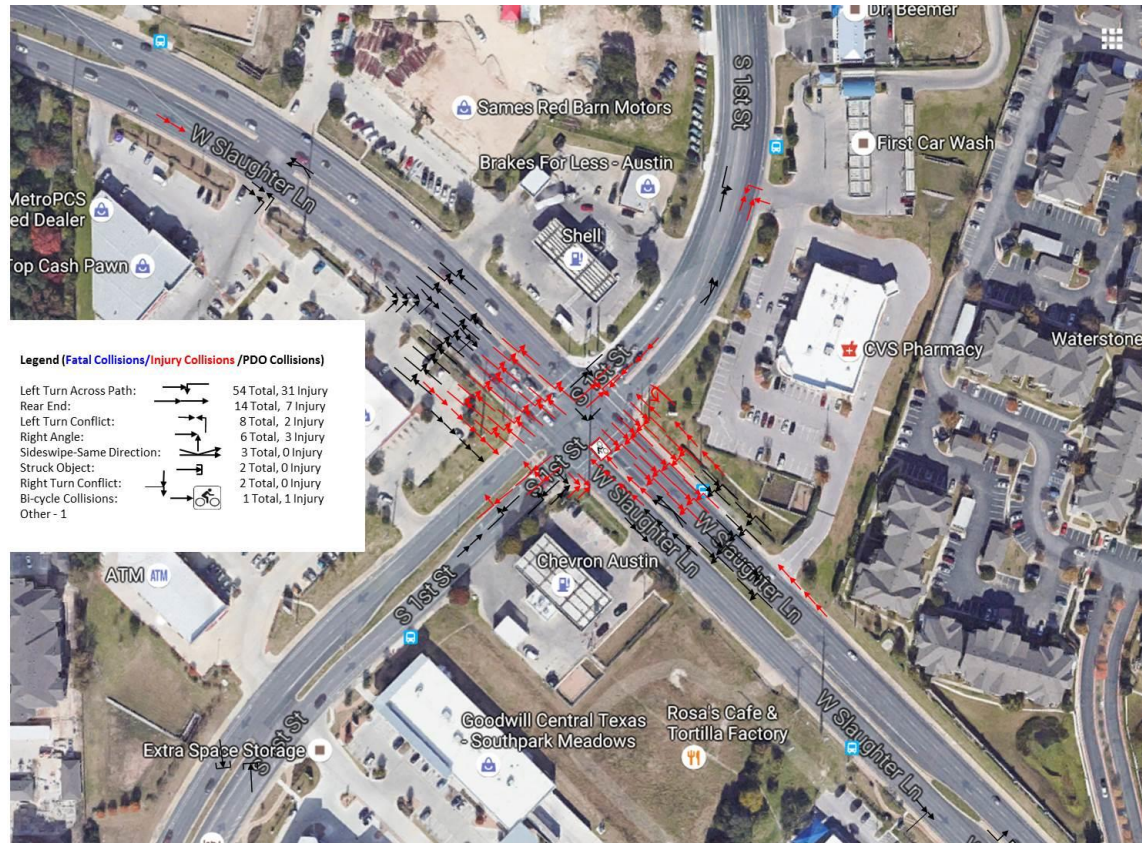
Design

- Detailed Design
- Bid package – Plans, Specs, Estimates
- ~ 4 to 6 months

Construction

- Bidding (~ 6 months)
- Construction (~ 4 months)

Note: Some phases may be concurrent



Crash Diagram for Slaughter/South 1st Intersection

Typical Improvements:

Intersection Reconfiguration or Reconstruction, Raised Medians, Traffic/Pedestrian Signals, Bicycle and Pedestrian Improvements

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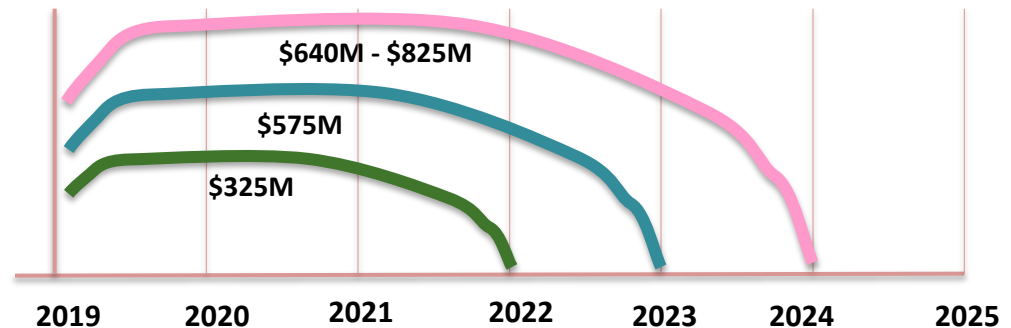


Major Intersection Safety Projects

Project Delivery:

- Build on existing processes and capacity built under 2016 Mobility Bond to ramp up quickly in 2019.
- Sustained project delivery at roughly 3 to 4 projects in construction per year.
- Roughly 6 to 7 projects in various phases of project development on a rolling basis per year.
- Scalable projects to reserve funds for the most critical safety needs.

Sustained Project Delivery



Risk Management:

- Phased project delivery: multiple projects in study, detailed design and construction phases in any calendar year.
- Strategic implementation of critical safety improvements at the locations to ensure best utilization of the bond funding.
- Cost escalation, construction climate.
- Coordination with other programs to avoid duplications and overlaps; partner agency (e.g. TxDOT, CapMetro) coordination.
- Delays with utility coordination and permits.

Vision Zero / Systemwide Safety Program: Funding Scenarios

Bond Scenario	\$325 million	\$575 million	\$640 million	\$825 million
Total Allotment	\$10.1 million	\$18 million	\$20 million	\$26 million

Major Intersection Safety Projects				
Bond Cycle (years)	2019-22	2019-23	2019-24	2019-24
Total Allocation	\$7.5M	\$14M	\$15M	\$15M
Annual Expenditure	\$2.5M	\$3.5M	\$3M	\$3M
Projects per Year	2-3	3-4	3	3

Speed Management				
Bond Cycle (years)	2019-23	2019-23	2019-23	2019-23
Total Allocation	\$500k	\$500k	\$1M	\$1M
Annual Expenditure	\$100k	\$100k	\$200k	\$200k
Projects per Year	3-10	3-10	6-20	6-20

Pedestrian Safety Improvements				
Bond Cycle (years)	2019-23	2019-23	2019-23	2019-23
Total Allocation	\$2.1M	\$3.5M	\$4M	\$4M
Annual Expenditure	\$420k	\$700k	\$800k	\$800k
Projects per Year	10-15	20-30	25-35	25-35

Transit Speed and Reliability (\$825 million scenario only)				
Bond Cycle (years)	-	-	-	2019-2023
Total Allocation	-	-	-	\$6M
Annual Expenditure	-	-	-	\$1M
Projects per Year	-	-	-	3-6

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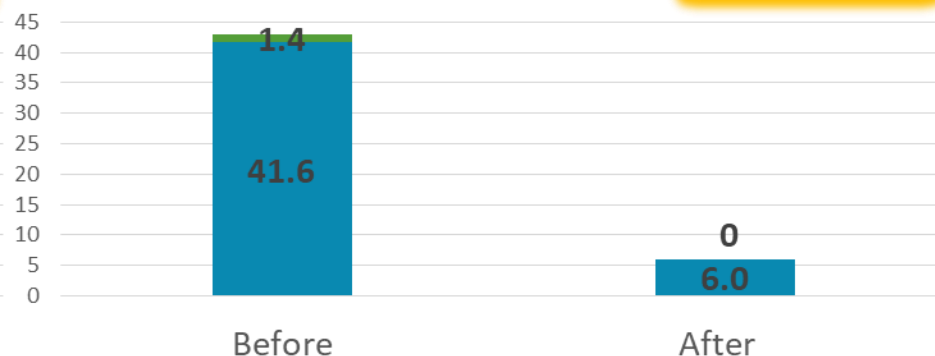
Major Intersection Safety Projects

Before and After Analysis
I-35 and MLK
(2012-2017)



■ Average Annual Crashes ■ Average Annual Serious Crashes

Before and After Analysis
Lamar between Rutland and Rundberg
(2012-2017)



■ Average Annual Crashes ■ Average Annual Serious Crashes

Before and After Analysis
US 183 and Cameron
(2012-2017)

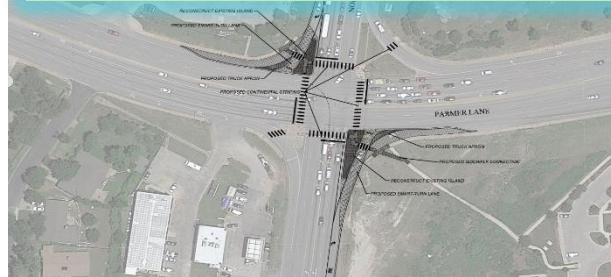


■ Average Annual Crashes ■ Average Annual Serious Crashes

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Work done...the road ahead

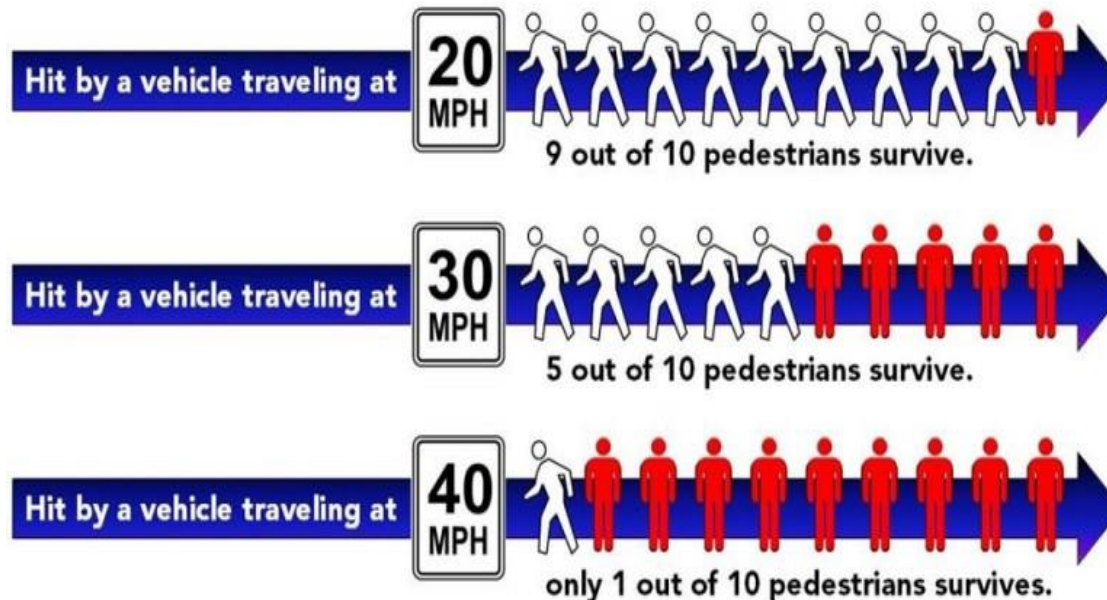


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Speed Management Purpose and Intent

To provide for the consideration of modifying existing roadways to mitigate adverse impacts from existing motor vehicle traffic within a defined area, through the design and implementation of geometric street features or traffic control devices.

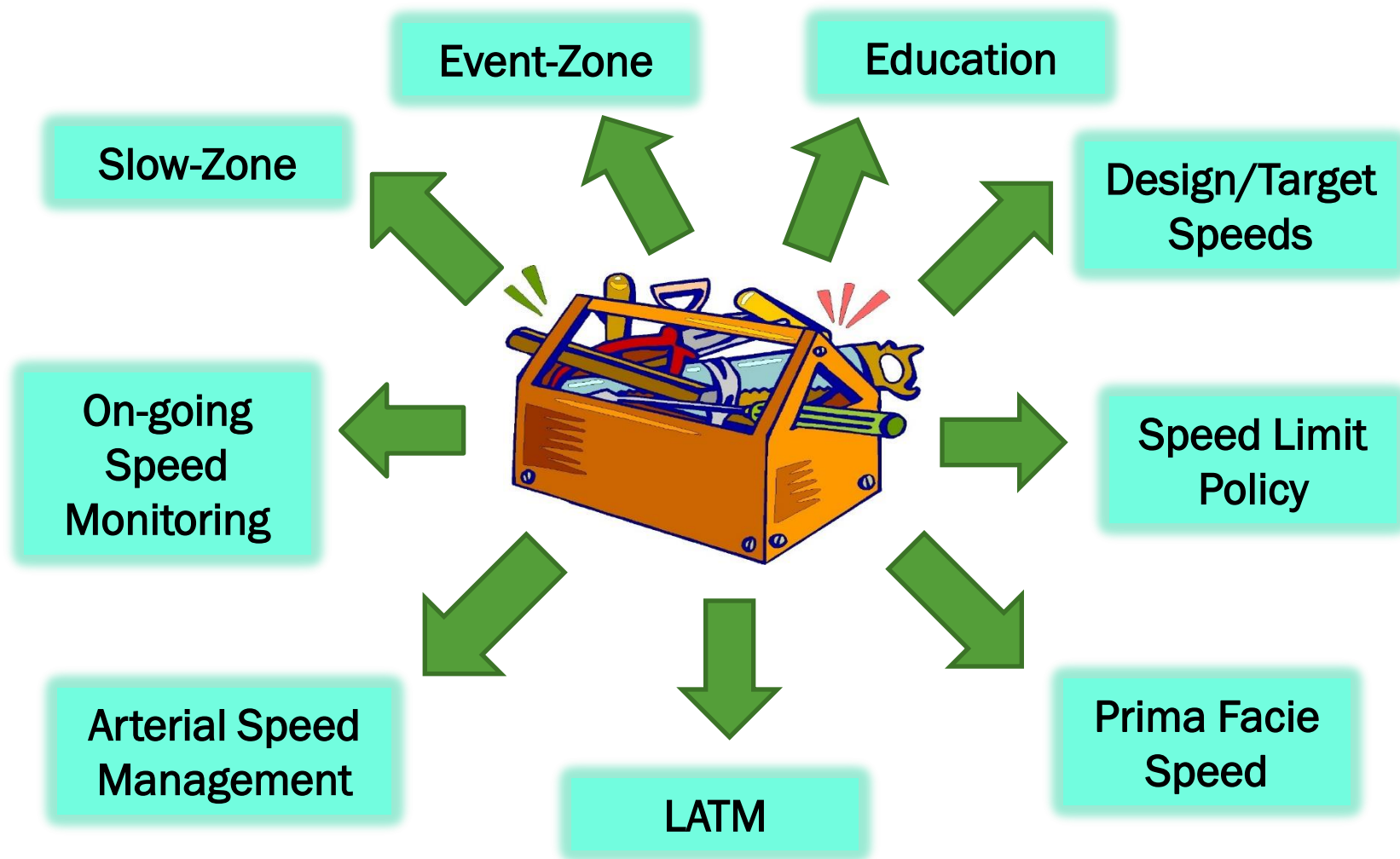


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Speed Management

Expanding the Toolbox



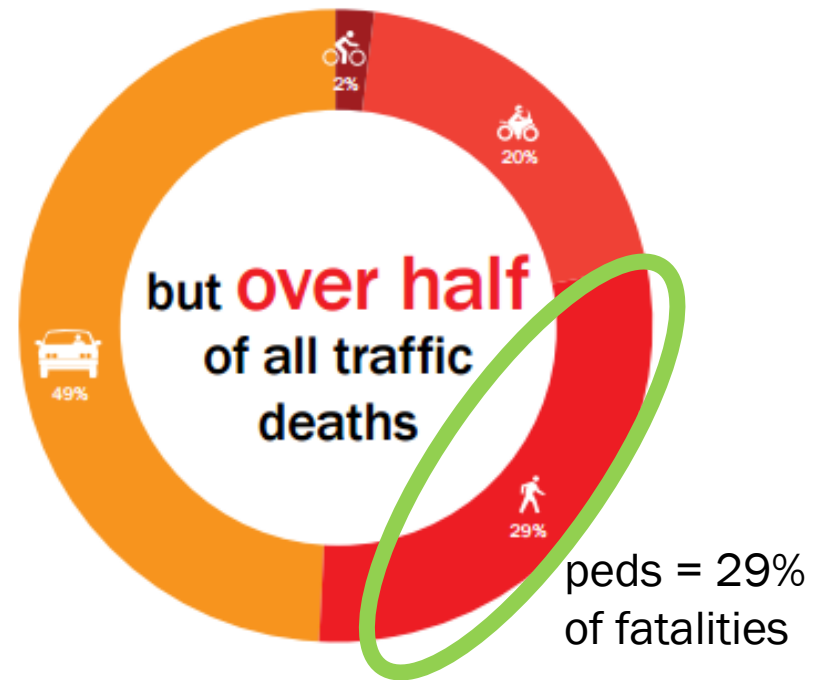
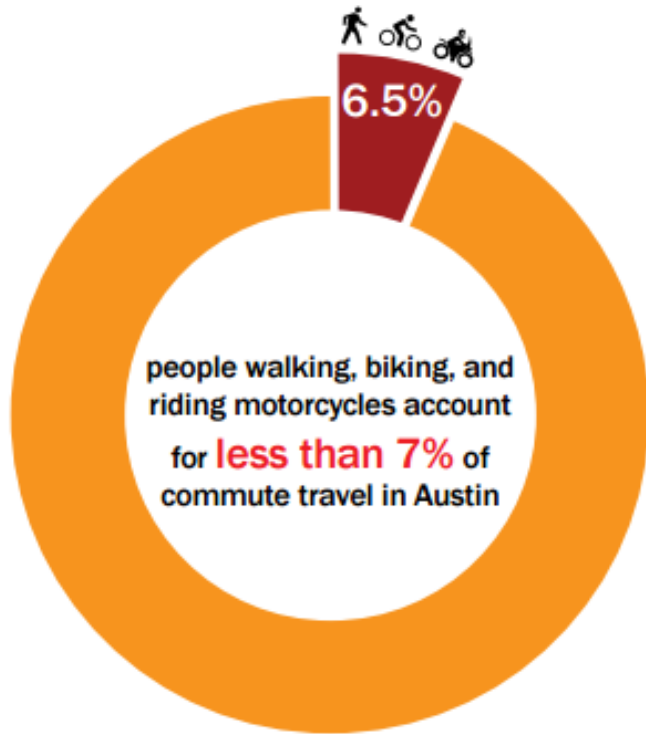
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Pedestrian Safety Improvements



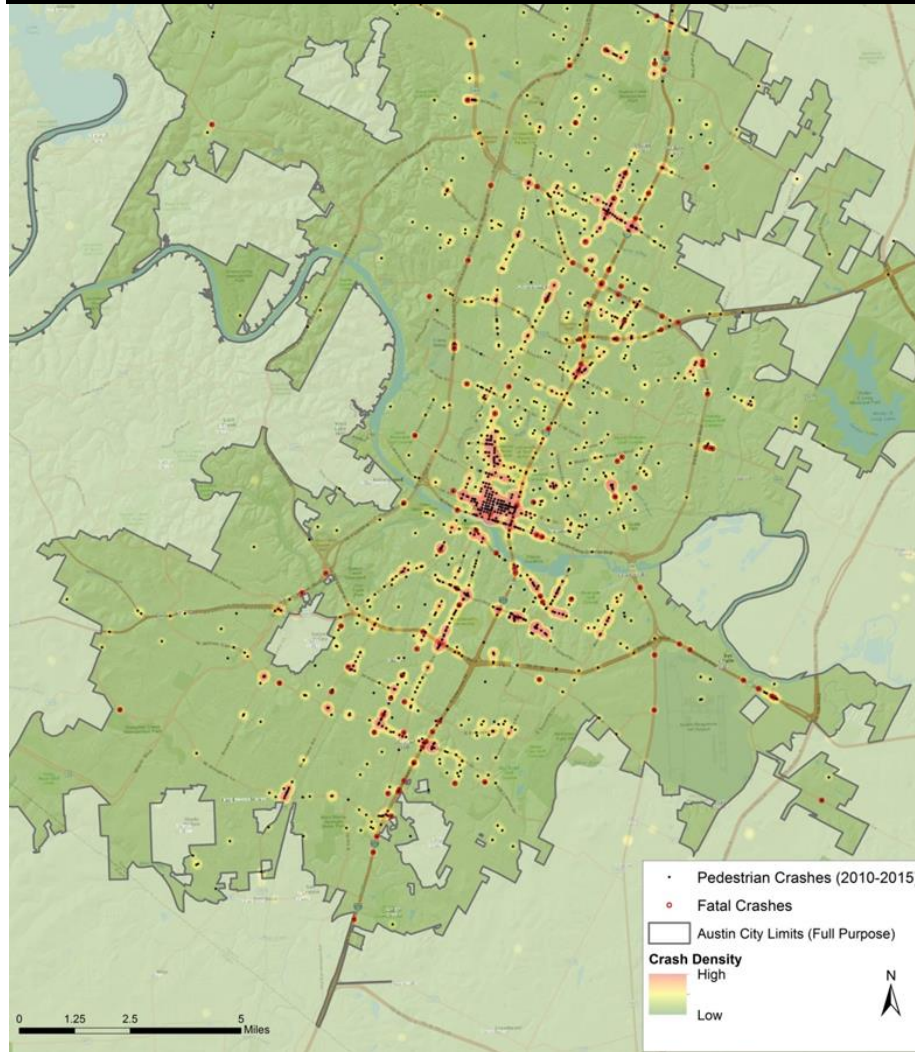
Source: American Community Survey Journey to Work Data (2013 5-year aggregate) and City of Austin Traffic Safety Data.

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Pedestrian Safety Improvements



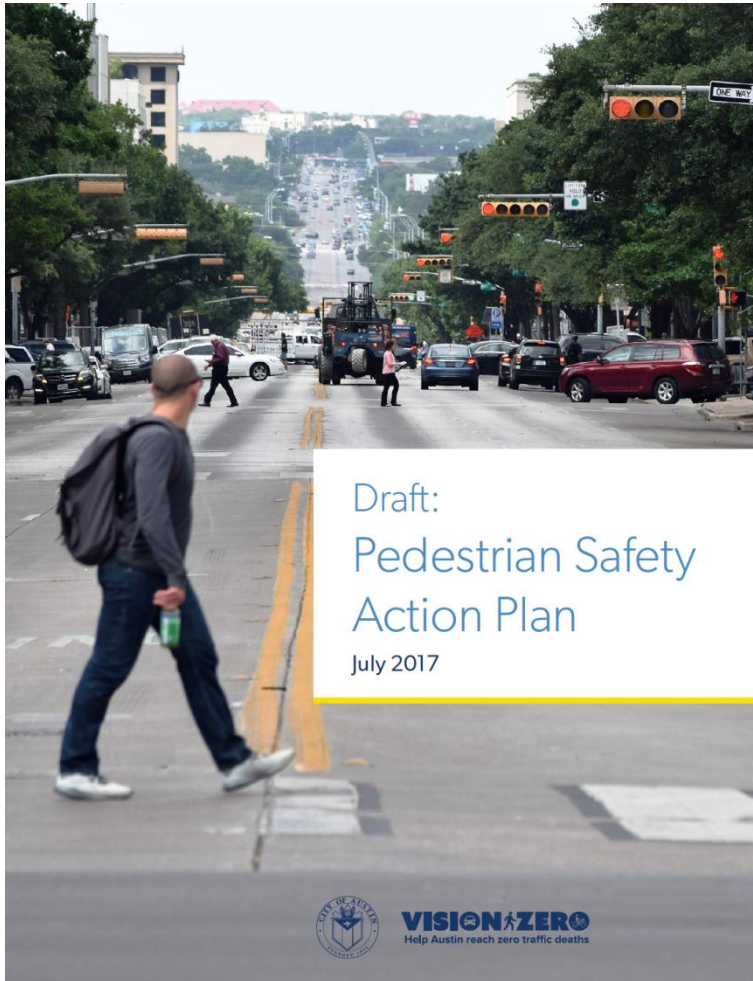
Pedestrian Crashes, Austin 2010-2015



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Pedestrian Safety Improvements



“Establish a Pedestrian Crossing Improvement Program to install large numbers of high-impact, cost-effective pedestrian safety treatments throughout Austin.”

- Pedestrian Safety Action Plan, 2017



VISION ZERO
Help Austin reach zero traffic deaths

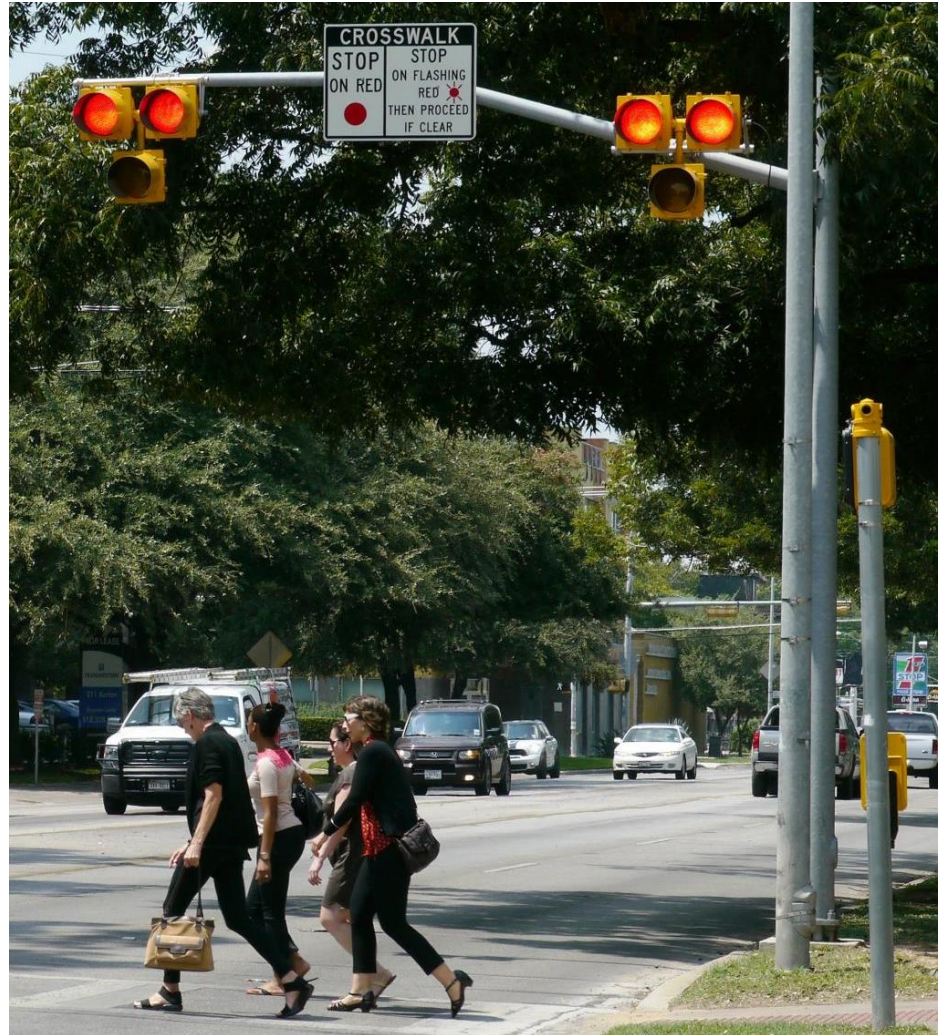
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Pedestrian Safety Improvements

*Build on the success
of this ...*



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Pedestrian Safety Improvements



... to also build more of these!



Refuge Islands

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Pedestrian Safety Improvements



Curb Modifications



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Pedestrian Safety Improvements



Flashing Beacons



Safety Lighting

Special Event
Safety and
Security
Infrastructure



Traffic Signal Strategies



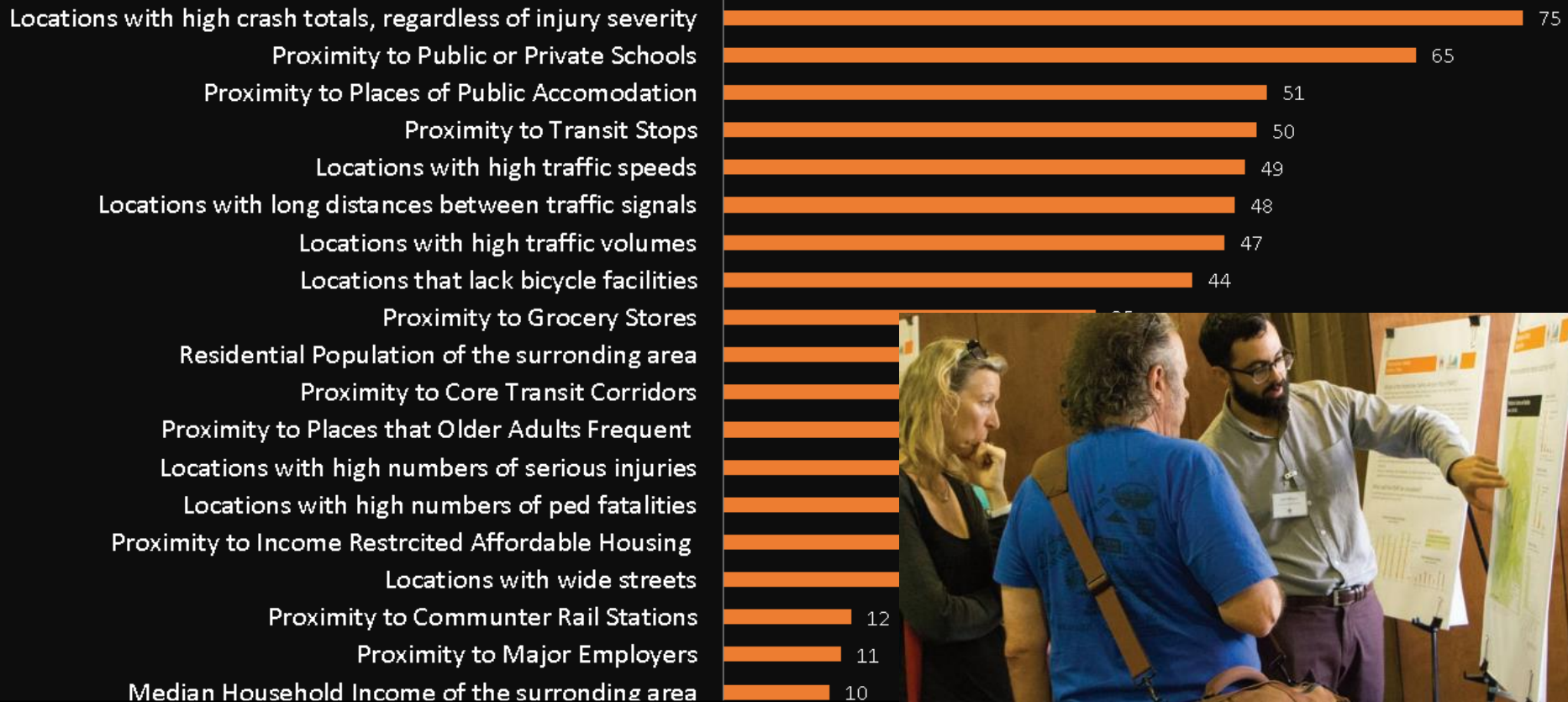
In-Street Signage

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Pedestrian Safety Improvements



How should pedestrian safety treatments be prioritized?

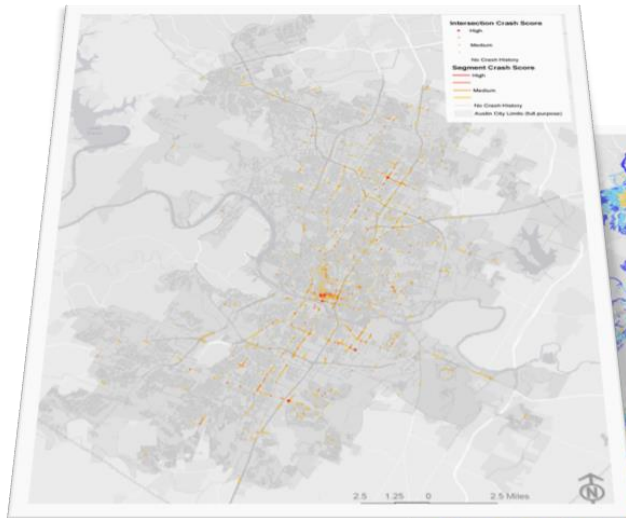


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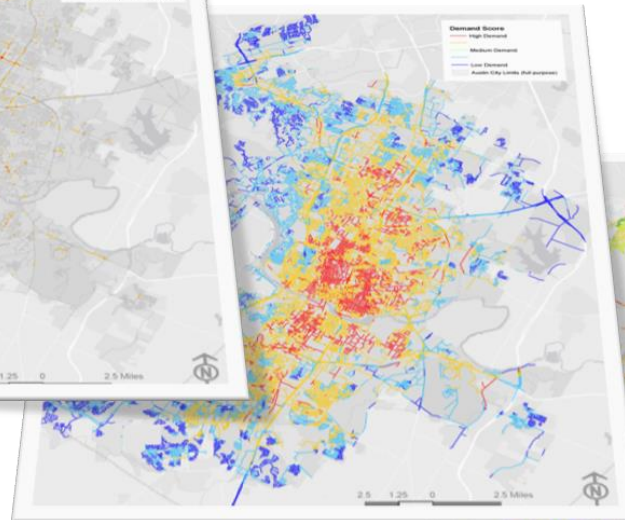
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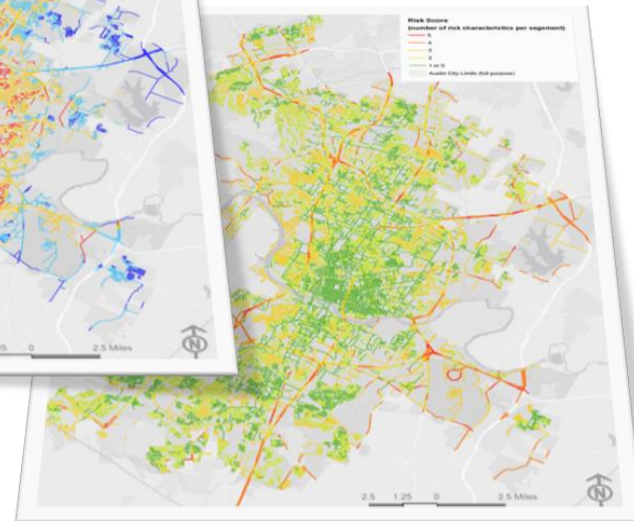
Prioritization Framework



Crash Scores



Demand Scores



Risk Characteristic Scores

Vision Zero / Systemwide Safety Program: Funding Scenarios

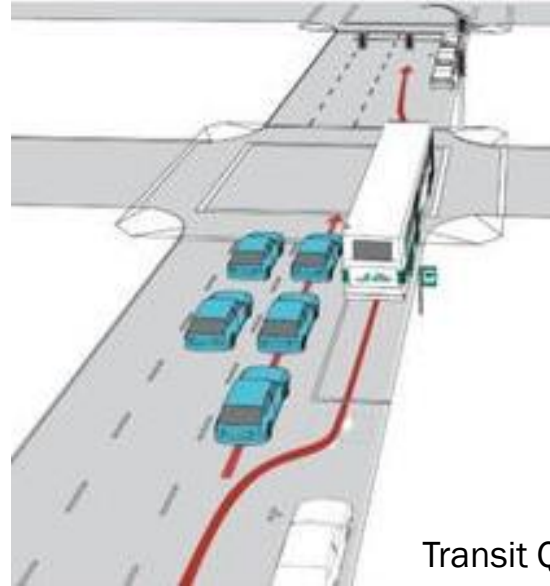
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Transit Speed & Reliability

- A new program in coordination with Capital Metro
- Data driven process to prioritize areas where transit travel time and reliability can be improved
- Employs tools such as the transit queue jump, transit only lanes and other strategies
- Safe pedestrian crossings, bus stop placement and integration
- Builds on new operational capacity to be added in FY18



Transit Queue Jump



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Thank You

Amica Bose, P.E.

Major Intersection Safety Project Manager

amica.bose@austintexas.gov

Mario Porras, E.I.T.

Local Area Traffic Management Program Manager

mario.porras@austintexas.gov

Joel Meyer, AICP

Pedestrian Coordinator

joel.meyer@austintexas.gov

Upal Barua, P.E., P.Eng.

Transportation Safety Program Manager

upal.barua@austintexas.gov

Laura Dierenfield

Division Manager

laura.dierenfield@austintexas.gov